

## A CODE DIVISION MULTIPLE ACCESS DOWNLINK RECEIVER

### Abstract

- 5 A code division multiple access downlink receiver is disclosed for providing wireless communication between a base station and a mobile station in which the receiver is implemented. The receiver comprises a cell searcher for receiving at least one signal from the base station and retrieving therefrom a common code relating to a cell, and a code generator for generating a set of common and dedicated codes relating to at least one
- 10 communication channel using the output of the cell searcher. The receiver also comprises a path searcher for receiving the at least one signal and performing a search for multiple paths by which the at least one signal arrives at the receiver, and a canceller for canceling data in the at least one communication channel from the at least one signal based on the output of the code generator and path searcher.
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